

# Urban and Community Forestry 2012 Request For Proposals

## Closing the Loop: Developing Urban Wood Utilization Capacity

### *PORTABLE SAWMILL & WOOD DRYING KILN DEMONSTRATION PROGRAM*



California Department of Forestry and Fire Protection (**CAL FIRE**)  
Urban and Community Forestry Program

## INTRODUCTION

In 1978, California enacted a piece of unique legislation referred to as the California Urban Forestry Act (Public Resource Code 4799.06 - 4799.12). Within the language of this unique act, the Legislature expresses many of the traditional benefits that urban forests have become well known for:

- enhanced property values
- ability to moderate local environmental conditions of temperature, humidity and winds
- reducing air pollution by removing airborne particulates
- reducing noise, providing habitat for a host of wildlife, reduction of storm water runoff, etc.

The California Department of Forestry and Fire Protection (**CAL FIRE**) has received direction within the language of this act to, and among other things:

- implement a program in urban forestry to encourage better tree management
- to assist communities in seeking innovative solutions to tree issues
- to encourage demonstration projects to optimize the benefits of urban forests.
- to encourage demonstration projects leading to solid waste prevention.

Many municipalities and local governments are currently experiencing budgeting problems in meeting community needs. Urban tree management and maintenance budgets are among those becoming strained.

Presently, much of the wood generated from tree removals brings little economic return to community tree management budgets. Because of this, most tree management and maintenance programs are being run as a cost burden to municipal budgets. Although most tree management crews are hard working and efficient, the products rendered from street tree removals are usually low-value, which returns little if any money to municipal coffers.

The 1989 California Waste Management Act, AB 939, requires every city to meet a 50% waste reduction goal by the year 2000. Landfill tipping fees have increased rapidly to encourage the reduction of materials into the waste stream. Green waste, especially logs from street trees, contributes significantly to the landfill problem. Although private industry and many municipalities currently chip much of the greenwaste generated from daily operations, logs pose a unique problem as handling and chipping can be difficult and financially unfeasible. In addition, much of the solid wood generated from a declining urban forest is cut into firewood. Although firewood produces some revenue, it does not represent the highest and best use of the end product, and furthermore, the demand for firewood is not great in many geographical areas of California, especially true in more recent years due to enhanced air quality regulations. Utilization of the wood material as saw logs would not only reduce the volume going to landfills but also offset tree replacement costs. In essence, California communities would be recycling trees at the end of their useful life. Trees that had served them so well for so long.

There is an increasing need to recycle urban wood waste, and even more important, a need to challenge the public perception of the urban forest and its utility. Managing and milling urban logs to produce valuable lumber demonstrates the value of our urban wood resources. Many of the hardwoods found in the urban forest are species endemic of other countries and continents and are, consequently, imported as specialty woods at a premium price. According to a study

done by California Polytechnic State University, San Luis Obispo, 110.4 million board feet of log-size urban woody residue is removed each year in California by tree care companies and about double this amount for all sources of urban tree residue. At an average price of \$3.00/board foot, California could generate \$662.4 million annually, affirming the urban forest as a resource.

Why, then, are urban trees being removed and taken to the landfill or cut into firewood? Tree mortality from natural occurrences like insects, diseases, and storms plus a myriad of man-made circumstances such as road-way widening, right-of-way maintenance, and utility construction activities, takes a huge toll on street trees. This results in a continuing need for tree maintenance on a community level. Much of this harvested wood, if produced and marketed effectively, can generate income or offset costs for municipalities to help support tree management and maintenance programs.

## OBJECTIVE

**CAL FIRE** currently has five (4) portable Wood-Mizer model LT-40 sawmills, one (1) Lucas Mill sawmill, and two (2) portable wood drying kilns, to loan to communities, cities, private industry/government partnerships, non-profits or other entities that handle large volumes of urban woods. The objective of the loan is to allow communities to investigate, demonstrate, and/or research the feasibility of urban wood milling as a business venture.

In addition, **CAL FIRE** is pursuing opportunities to promote urban wood utilization and to educate the public on the urban forest as a “resource” rather than as “waste.” Therefore, educational programs, public outreach, and cooperative relations are encouraged with the loan of the mills. Producing end products with high public visibility, such as park benches and picnic tables will accomplish this objective, as well as offering enhanced availability of a host of exotic urban hardwoods to a woodworking public. Engaging in community projects with local high school or community college woodworking classes and fine arts departments will incorporate local residents and promote cooperative relations.

Milling urban trees presents some problems, which can undermine the concept of revenue generation. Here is just a sample of some of the issues urban wood mill operators have encountered:

- Marketing – who is going to purchase the finished lumber?
- End products – is raw lumber the highest end use, or are specialty products the focused use of such material?
- Will the mill operator have a continuous supply of logs of a certain species? How will the operator be able to respond to the “demand” for certain species cut to specific lengths and widths?
- Will all urban species prove to be durable, decay resistant, and adaptable to drying techniques?
- Which cuts will result in the maximum amount of high-grade lumber for each species, i.e., flat-grained vs. quarter-sawn boards.
- How are large logs to be transported? Is it more cost effective to take the mill to the removal site?
- Will the operator have adequate space for storage of logs and lumber?
- Will nails and other metal imbedded in trunks affect the feasibility of milling?

- Are there specific local markets for specialty woods currently being imported, and can those markets be tapped?

These are just a few of the many issues that must be addressed before milling urban trees can become a profitable business endeavor. Although many solutions have been found to some of these issues, more work needs to be done to research the best approach to urban wood utilization before consumers. Applicants should address these issues in their application for a loan of equipment. The loan of the equipment is cost free, but the applicant must demonstrate adequate technical ability, insurance, commitment to the development of a continuing urban wood utilization effort, and to educating the public on such efforts.

### **APPLICATION TIMELINE**

Applications will be due by **August 15, 2011**. The application form and all attachments (as listed below) must be submitted by this due date. CAL FIRE will review applications for completeness and competitiveness. If an applicant is not awarded an equipment loan, then they can reapply for the program during the next cycle of the program.

### **PROJECT TIMELINE**

You may select to have a 12 or 24 month project. Please provide adequate justification for why you selected the length of project you did. Projects that last beyond 24 months would have to reapply for the program after the 24 month period. *CAL FIRE will advertise this program every other year. Proposals will be retained during the two year period so that accepted projects are ready should equipment become available to loan before the program is advertised again.*

### **PROPOSAL FORMAT**

Proposals from interested parties may inquire or with the Field Specialists listed on [http://www.fire.ca.gov/resource\\_mgt/resource\\_mgt\\_urbanforestry.php](http://www.fire.ca.gov/resource_mgt/resource_mgt_urbanforestry.php). The application form will be submitted to an email account when the applicant clicks the appropriate button on the application. The supporting documents requested may be sent with a hard copy of the application to the appropriate Field Specialist.

#### **Items due by application due date:**

Application Form: The application form must be filled out by a qualifying local government, special district, or 501(C) 3 non-profit. The PDF format application can be found at: [http://www.fire.ca.gov/resource\\_mgt/resource\\_mgt\\_urbanforestry.php](http://www.fire.ca.gov/resource_mgt/resource_mgt_urbanforestry.php) or <http://www.ufe.org>.

*The application form includes the following narrative portions amongst others:*

- Experience and qualifications. Why is the applicant qualified to undertake this project and what experience does the applicant have. Include information about safety training on similar equipment.
- A Project Description explaining the scope of the project, purpose and intent, description of work, and final objectives. How will this project benefit the community? Are there educational opportunities that will be pursued? Describe any cooperative relations, public outreach or

demonstration programs that will promote urban wood utilization. Provide a rough business model and marketing plan. What are the project deliverables for CAL FIRE?

*Note: Partnerships with individuals or private companies interested in developing technical capacity or a new business model for utilizing urban wood are strongly encouraged. A completion report will be required at the conclusion of the contract; documentation of volume and tonnage of urban trees processed, disposition of processed wood and revenues from such disposition as well as, presenting any opportunities or constraints encountered during milling, and any findings on marketability, etc.*

Additional requirements to apply for this program include:

- Proof of adequate liability insurance. Evidence of insurance must be provided. The contractor shall later be required to furnish to the State a certificate of insurance stating that Contractor has general liability insurance, including bodily injury and property damage coverage presently in effect, with a combined single limit (CSL) of not less than \$1,000,000 per occurrence for activities performed under this contract and shall maintain this coverage in force while in possession of the equipment as noted within Exhibit A.
  - a. Under this minimum coverage, the certificate must show the following:
    - 1. general liability covering bodily injury and property damage; and
    - 2. automobile liability insurance if motor vehicles are used.
  - b. Certification of insurance will provide that:
    - 1. insurer will not cancel the insured's coverage without 30 days prior written notice to State; and
    - 2. State of California, its officers, agents, employees, and servants are included as additional insured's for the purpose of this contract
- Location map. The map should be of a scale that is able to show site(s) clearly and with adequate reference points. Multiple maps may be needed in some cases.
- Pictures of proposed processing site(s). Include pictures of all sites to be utilized if possible. If not possible to do so, include pictures of representative sites.
- Budget support overview: Provide a description of the financial support you have to make this project successful; e.g., program budget dollars, support equipment, labor, etc. Be sure to denote if funds being cited are already on hand or if they are in development or have been applied for. See sample budget format on the next page.

**Items due before equipment may be loaned:**

- A signed resolution in the required format from the local jurisdiction (e.g., City Council) or governing body (e.g., Board of Directors).
- A CEQA checklist must be filled out completely. The checklist will be made available after applications are scored and decisions made. Additional CEQA documentation may also be required based upon the answers on the checklist and/or a field inspection of project areas.

## REPORTING REQUIREMENTS

Reporting requirements will be every six months at minimum, and may be required more frequently by CAL FIRE staff. Reports should include a summary of activities, challenges, and successes, as well as a report on progress towards specified deliverables. The report must include the amount of wood produced, and amount of material diverted from landfill.

### SAMPLE BUDGET FORMAT:

<i>Description</i>	<i>hard dollar match (Applicant)</i>	<i>in-kind match (Other Source)</i>	<i>Project Total (all sources)</i>
<i>Project Director (Applicant)</i>	<i>\$ 4,000.00/ month x 12</i>		<i>\$ 48,000.00</i>
<i>City project recycling grant</i>	<i>\$ 5,000.00</i>	<i>\$15,000.00</i>	
<i>City leased support vehicles</i>	<i>\$ 500.00/ month x 12</i>	<i>\$6,000.00</i>	
<i>Insurance</i>	<i>\$ 500.00/month x 12</i>		<i>\$6,000.00</i>
<i>Equipment upkeep</i>	<i>\$ 2,000.00</i>		<i>\$2,000.00</i>
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<i>Grand Totals</i>	<i>\$56,000.00</i>	<i>\$21,000.00</i>	<i>\$77,000.00</i>

***IMPORTANT NOTE: Additional or clarifying information may later be required of applicants before equipment is loaned.***

# Urban Wood Utilization Equipment Loan Program Project Resolution

Resolution No. \_\_\_\_\_

Resolution of the \_\_\_\_\_ of \_\_\_\_\_  
(Title of Governing Body) (City/ County/ District)

for the purpose of providing authorization to enter a partnership demonstration project with the California Department of Forestry and Fire Protection for the following project:

**WHEREAS**, the Governor of the State of California in cooperation with the California State Legislature enacted an Urban Forestry Act of 1978 for the purposes of improving management of our community forest resources; and

**WHEREAS**, the State Department of Forestry and Fire Protection has been delegated the responsibility for the administration of the program within the State, setting up necessary procedures governing application by local agencies, business ventures and non-profit organizations under the program; and

**WHEREAS**, said procedures established by the State Department of Forestry and Fire Protection (CAL FIRE) require the applicant to certify by resolution the approval of applications before submission of said application to the State; and

**WHEREAS**, the applicant will enter into an agreement with the State of California to carry out a pilot demonstration project in urban forestry with special attention given to energy conservation and wood and fiber utilization projects;

NOW, THEREFORE, BE IT RESOLVED that the \_\_\_\_\_  
(Title of Governing Body)

1. Approved the filing of an application to enter into a partnership with CAL FIRE for a demonstration project to show the practical and sustainable use of urban hardwood waste resources; and
2. Certifies that said applicant has or will have sufficient funds and operational field support to operate and maintain the project; and,
3. Certifies that the Governing Body reflected in actions of this Resolution understands and accepts responsibilities and conditions specified in the body of the State Contract for the loan of this state equipment valued at \$ \_\_\_\_\_ being loaned for this pilot project; and,
4. Certifies that funds and/or field support under the jurisdiction of \_\_\_\_\_ is available to begin the project; and,  
(Governing Body)
5. Appoints \_\_\_\_\_ as agent of the \_\_\_\_\_  
To conduct all negotiations, execute and submit all documents including, but not limited to the project application, agreements, amendments, and so on, which may be necessary for the completion of the aforementioned project; and,

Approved and Adopted the \_\_\_\_\_ day of 20\_\_\_\_. I, the undersigned, hereby certify that the foregoing Resolution Number \_\_\_\_\_ was duly adopted by the \_\_\_\_\_ following roll call vote:  
(City Council/ Bd. of Supervisors/ Bd. of Directors)

Ayes:

Noes:

Absent:

**NOTARIZEDSEAL** (required)

\_\_\_\_\_  
(clerk)

## PROJECT REFERENCE INFORMATION



1. **California Urban Woody Green Waste Utilization**, Urban Forest Ecosystems Institute, Cal-Poly State University – San Luis Obispo, February 1999, Technical Report # 8, online access at [www.ufe.org](http://www.ufe.org) under the heading of ‘publications’
2. **The Elements of Sustainability in Urban Forestry**, Urban Forest Ecosystems Institute, Cal-Poly State University – San Luis Obispo, July 1994, available through CAL FIRE, 2524 Mulberry Street, Riverside, CA 92501, online access at [www.ufe.org](http://www.ufe.org) under the heading of ‘publications’
3. **Recycling Municipal Trees, A Guide for Marketing Sawlogs from Street Tree Removals in Municipalities**, USDA Forest Service, Northeastern State & Private Forestry, Morgantown, WV, June 1994, available through CAL FIRE, 2524 Mulberry Street, Riverside, CA 92501
4. **How to Recycle Shade Tree Materials, Tree City USA Bulletin #16**, The National Arbor Day Foundation, Nebraska City, NE, available through CAL FIRE, 2524 Mulberry St., Riverside, CA 92501
5. **Tree Volume Equations for Fifteen Urban Species in California**, Urban Forest Ecosystems Institute, Cal-Poly State University – San Luis Obispo, June 1998, Technical Report # 7, online access at [www.ufe.org](http://www.ufe.org) under the heading of ‘publications’ or in hard copy format from CAL FIRE, 2524 Mulberry St., Riverside, CA., 92501